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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,086	06/08/2005	Kenichiro Aridome	SON-3122	6679
23353 7590 06/11/2010 RADER FISHMAN & GRAUER PLLC LION BUILDING 1233 20TH STREET N.W., SUITE 501 WASHINGTON, DC 20036				
EXAMINER				
SINF, BEHROOZ M				
ART UNIT		PAPER NUMBER		
2621				
MAIL DATE		DELIVERY MODE		
06/11/2010		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/538,086

**Applicant(s)**

ARIDOME ET AL.

**Examiner**

BEHROOZ SENFI

**Art Unit**

2621

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 May 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-10 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/22)
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date: \_\_\_\_\_

**DETAILED ACTION**

***Response to Amendment***

1. Applicant's arguments, see remarks, filed 5/20/2010, have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Sugahara et al. (US 2002/0037161) and Nakatani et al. (US 2004/0247296).

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2 and 4-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugahara et al. (US 2002/0037161) in view of Nakatani et al. (US 2004/0247296).

Regarding claim 1, Sugahara discloses, a video-encoding device for encoding video signals (i.e., figs. 1 and 10) and exerts control over the encoding according to an occupied amount of a virtual buffer (i.e., figs. 1 and 10, controller 21 and VBV Buffer information), the occupied amount being determined based on the amount of codes generated through the encoding and the amount of codes transferred to an output destination (i.e., amount of code controller as shown in figs. 1 and 10), the video-encoding device comprising; setting an initial value of the occupied amount of the virtual buffer based on the (i.e., figs. 1 and 10, paragraphs 0026, 0041, 0044, 0119 and 0173-0176), occupied-amount update means for updating the occupied amount of the virtual

buffer every time the encoding is performed (i.e., figs. 1 and 10, paragraphs 0173-0180; VBV buffer information/monitoring; it is noted that, the VBV is generally known to maintain and update a buffer fullness in order to stimulate the entering and removing of coded data to and from the physical buffer of the video decoder), optimum-occupied-amount calculation means for calculating a predetermined optimum occupied amount based on the updated occupied amount of the virtual buffer (i.e., figs. 3 and 10, VBV buffer information generator and detector, VBV buffer monitoring, paragraphs 0119 and 0173-0180, VBV value of 80% of maximum value consider as optimum occupied amount calculation means), target-code-amount calculation means for calculating a predetermined target-code amount based on the video signals of the following chapter (i.e., figs. 1 and 10, paragraphs 0019, 0021, 0173 and 0178-0180, setting the target amount of code), target-code-amount adjustment means for adjusting the target code amount so that the sum total of the occupied amount of the virtual buffer and the target code amount does not exceed the optimum occupied amount, and encoding means for performing the encoding based on the adjusted target code amount (i.e., fig. 10, paragraphs 0014, 0019, 0046-0051, 0178-0180 and 0196).

Obviously the recording medium (fig. 10, 31), e.g., recording mode determination means, of Sugahara makes the determination to record picture data between chapters seamlessly. However, in order to be more explicit in regards to, recording mode determination means for determining whether or not seamless connection between a preceding chapter and the following chapter that are included in the video signals is feasible, as specifies in the claim.

Nakatani (i.e., abstract, lines 11-22 and paragraphs 0014-0017) teaches recording mode to determine whether the seamless connection between a preceding chapter and the following chapter that are included in the video signals is feasible/possible or not, by using a seamless flag.

Taking the teaching of Sugahara and Nakatani, as a whole, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the teaching of Nakatani into the MPEG picture data recording of Sugahara, in order to smoothly perform special reproduction, as suggested by Nakatani.

Regarding claim 2, the combination of Sugahara and Nakatani teaches, the video-encoding device according to Claim 1, wherein the recording-mode determination means determines an occupied amount of the virtual buffer immediately before the video signals of the following chapter are transferred to the virtual buffer to be an initial value of the occupied amount of the virtual buffer, where the seamless connection is feasible, and sets the initial value of the occupied amount of the virtual buffer to zero, where the seamless connection is infeasible (please refer to occupied amount determination described in claim 1 above, further; Nakatani, page 5, paragraphs 0078-0079 and page 8, paragraph 0134, indication of reset and/or not reset, which is equivalent to setting the amount of buffer to zero).

Regarding claim 4, the combination of Sugahara and Nakatani teaches the video-encoding device according to Claim 2, wherein the optimum-occupied-amount calculation means calculates a predetermined value that is equivalent to and/or as large as the updated occupied amount of the virtual buffer, as the optimum occupied amount

(Sugahara; figs. 3 and 10, VBV buffer information generator and detector, VBV buffer monitoring, paragraphs 0119 and 0173-0180, VBV value of 80% of maximum value consider as optimum occupied amount calculation means)

Regarding claim 5, the limitations claimed have been addressed in claim 1 above.

Regarding claim 6, the limitations claimed have been addressed in claim 2 above.

Regarding claims 7-10, please refer to claim 1 above.

***Allowable Subject Matter***

4. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Contact***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Behrooz Senfi whose telephone number is 571-272-7339. The examiner can normally be reached on M-F 7:00-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Behrooz Senfi/  
Primary Examiner  
Art Unit 2621